

area received more than 6 inches during the month, but this was too near the coast to permit the occurrence of river floods. In all sections precipitation occurred at remarkably regular intervals and in such amounts as to favor the maintenance of steady stream flow and an unvarying water supply. Hence, the regions of least precipitation in the interior experienced no insufficiency of moisture while the coast regions witnessed no floods. Only two stations in the entire district reported precipitation at excessive rates and the greatest amount of rain that fell within 24 consecutive hours was only 2.72 inches at Newark, N. J., on the 6th and 7th.

The heaviest rains occurred about the 6th, 17th, and 24th. The number of days with precipitation was least in West Virginia, where the average was only 5, but in the other States of the district the number was generally close to 10, being greatest in the northern sections. At Trenton Falls and Morehouseville, N. Y., there was 0.01 inch or more of precipitation on 18 days.

SNOWFALL.

The total snowfall for the month varied from 48.2 inches at Morehouseville, N. Y., to none at several stations near the coast from Rhode Island southward. At all the stations in Virginia, West Virginia, Maryland, Delaware, and in parts of Pennsylvania, New York, Connecticut, Rhode Island, and Massachusetts there was less than 1 inch of snow during the month. Probably one-third of the district received less than 1 inch and two-thirds less than 6 inches. The remaining third of the district witnessed several heavy falls of snow. The snowfall of the 15th was remarkable. On that date, including part of the following day, 16 inches of snow fell at Morehouseville, N. Y., and 4 inches or more were recorded at 9 other stations situated in the central part of the State and representing about 10 contiguous counties. In northern New England this storm was attended by from 3 to 10 inches of snowfall.

GALES.

The wind movement was much greater than usual during the month and in many instances destructive velocities were attained. On the night of the 12th and the morning of the 13th the Atlantic seaboard from New York to Boston was lashed by a gale that attained a velocity of 72 miles an hour at New York City. It destroyed small vessels and threatened even the largest and caused the loss of many lives. A barge bearing a crew of 14 men was torn from the towing craft, rendered helpless, and carried beyond assistance. After a search

of nearly 36 hours by the United States revenue cutter *Mohawk*, the barge and crew were given up as lost. Several fatal wrecks took place in Long Island Sound. Four men were washed overboard from the schooner *Witch Hazel*, disabled near New Haven, and an unknown number were lost when another schooner went down in Plum Gut near New London. A score or more of small boats were dashed upon the beach and splintered in the more exposed parts of New York Harbor and numerous oyster smacks and other craft were piled on the beach on Staten Island.

The destruction and suffering were not confined to the sea for the force of the wind was sufficient to demolish buildings and ruin entire orchards as far inland as Middletown, N. Y., more than 40 miles from the ocean. The rapid fall in temperature, in some places amounting to nearly 40° within 12 hours, attended by sleet or snow, brought keen suffering to the homeless in New York and other cities.

RIVER CONDITIONS.

The height of the water in the Hudson, Susquehanna, and Delaware systems was considerably above the November average, but the highest stages were much below the flood line. In the principal streams the volumes of water were remarkably constant, the difference between the highest and lowest stages being generally less than 3.5 feet. At Trenton Falls, N. Y., the low-water record for November was broken on the 4th, when the gage reading was 4 feet.

SUNSHINE.

Although the month was cooler and wetter than usual, the percentage of the possible sunshine was somewhat above the normal, the average for the district being 49 and equaling that for the preceding month. The total number of hours of sunshine was only 83 at Eastport, Me., and 112 at Albany, N. Y., but over southern New England and that part of the district farther south there was much clear weather for the season, and the records for the month gave 135 to 190 hours of sunshine. Atlantic City, N. J., reported 13 days with 80 per cent or more of the possible sunshine. For the entire district the average number of such days was 8, while the average number of days with 20 per cent or less of the possible sunshine was 9. There were fewer than 5 clear days at some stations in Maine, New Hampshire, Vermont, Massachusetts, and New York, but the average number reported in these States was about 9 or nearly the same as the average for the whole district.